

# INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/AU2004/001053**

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: H04L 1/16, 12/56; H03M 5/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WPAT, ESP@CE, USPTO, INTERNET, Keywords (network, protocol, wireless, packet, acknowledgment, broadcast) and similar terms.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 2004/034310 A2 (COLDER PRODUCTS COMPANY) 22 April 2004 See whole document in particular pages 3 - 8	27 - 30
P, X	US 2003/0227934 A1 (WHITE et al.) 11 December 2003 See whole document in particular paragraphs 29 - 33 and 37	1 - 8, 11 - 14, 17 - 22, 24 - 26
X	US 6574668 B1 (GUBBI et al.) 3 June 2003 See whole document in particular abstract, fig 3 and columns 7 - 9	1, 2, 4, 5, 6, 11, 12, 13 - 26
X	WO 2001/078426 A1 (PROXIM, INC. et al.) 18 October 2001 See whole document in particular fig 1B and pages 3 and 4	1, 5, 11, 12, 17, 21

☐ Further documents are listed in the continuation of Box C

☒ See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 12 October 2004	Date of mailing of the international search report 15 OCT 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized officer  BEN TUOHY Telephone No : (02) 6283 7918

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### Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

### Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See supplemental box for details.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

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## Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

### Continuation of Box No: III

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are two inventions:

1. Claims 1 - 26 are directed to a communications protocol for use in a network of devices, the protocol having a frame including a first time slot for transmitting data, a second time slot, after the first time slot, for transmitting a first acknowledge state, and a third time slot, after the second time slot, for transmitting a second acknowledge state. It is considered that the protocol having a frame including a first time slot for transmitting data, a second time slot, after the first time slot, for transmitting a first acknowledge state, and a third time slot, after the second time slot, for transmitting a second acknowledge state comprises a first "special technical feature".
2. Claims 27 - 30 are directed to a method of providing a marker in a data frame, the method including encoding data bits at a particular point in a data sequence to provide states, generating a state combination that is an illegal combination and recognising that illegal combination as a marker. It is considered that encoding data bits at a particular point in a data sequence to provide states, generating a state combination that is an illegal combination and recognising that illegal combination as a marker comprises a second "special technical feature".

Since the above mentioned groups of claims do not share either of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept.

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
WO	04034310				
US	2003227934	WO	03105353		
US	6574668	AU	29544/01	EP	1269675 WO 0156219
WO	0178426	AU	53331/01	EP	1277359 US 2001055312
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					